UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/707,186	11/25/2003	Richard Liddy	81087759	1185

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EXAMINER
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ART UNIT	PAPER NUMBER
2113	

DATE MAILED: 08/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>*18 August 2006*</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *16* is/are allowed.

6)☒ Claim(s) *1-4,17 and 19* is/are rejected.

7)☒ Claim(s) *5-15,18 and 20* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

Final Office Action

Response to Amendment

1.   The Affidavit filed on August 18, 2006 under 37 CFR 1.131 has been considered but is ineffective to overcome the Chandler et al. reference.

2.   The evidence submitted is insufficient to establish a conception of the invention prior to the effective date of the Chandler et al. reference. While conception is the mental part of the inventive act, it must be capable of proof, such as by demonstrative evidence or by a complete disclosure to another. Conception is more than a vague idea of how to solve a problem. The requisite means themselves and their interaction must also be comprehended. See *Mergenthaler v. Scudder*, 1897 C.D. 724, 81 O.G. 1417 (D.C. Cir. 1897). The email correspondence and Appendix A were not included in the Applicant's response, so conception could not be determined.

3.   The evidence submitted is insufficient to establish diligence from a date prior to the date of reduction to practice of the Chandler et al. reference to either a constructive reduction to practice or an actual reduction to practice. The Applicants have not showed diligence because the email correspondence and Appendix B were not included in the Applicant's response. Although the Examiner is unsure as to what was included in Appendix B, the Examiner would like to remind the Applicant that the entire period between June 18, 2003 to July 5, 2003 must be accounted for with proper documentation.

4.   The evidence submitted is insufficient because all six inventors have not signed

it.

Claim Rejections - 35 USC § 101

5.   In view of the recent amendments, the rejection of claims 19 and 20, under 35

U.S.C. 101 because the claimed invention is directed to non-statutory subject matter,

has been withdrawn.

Claim Rejections - 35 USC § 102

6.   The text of those sections of Title 35, U.S. Code not included in this action can

be found in a prior Office action.

7.   Claims 1, 2, 17, and 19 are rejected under 35 U.S.C. 102(e) as being anticipated

by Chandler et al., US 2004/0256718 A1.

Referring to claim 1:

a.   In paragraph 0009, Chandler et al. disclose providing a method for

facilitating Human Factors Failure Modes and Effects analysis (A computer-

implemented method to facilitate failure modes and effects analysis (FMEA) of

one or more components of a system, wherein an FMEA form is generated to

indicate the FMEA).

b.   In paragraph 0021, Chandler et al. disclose guiding the user through a

step-by-step HF PFMEA and human error risk assessment and that the tool can

be configured to provide warnings when necessary data is not available to

continue (displaying with a graphical user interface used by a computer a

sequential order of completion of steps for a number of graphical representations

which are to be completed by an FMEA analyst and received by the graphical

user interface in sequential order to facilitate generating the FMEA form).

c.   In paragraph 0025, Chandler et al. disclose that software control buttons

allow the user to move between phases of the software tool, such as by allowing

the user to move between the HF PFMEA process phases and the table and

report (FIG. 1) which are generated by the process. Thus, as a user makes

changes in the process, the user can monitor effects of the changes in the

outputs of the process. Similarly, after the outputs have been generated, if the

user should need to make changes in the process, the user can easily return to

the process to effect those changes (and receiving the graphical representations

according to the sequential order of completion, wherein receiving the graphical

representations comprises receiving a pictorial diagram of component

interactions for one or more components comprising the system such that a

visual display of the component interactions is received to facilitate generating

the FMEA form, and wherein a first graphical representation is received and each

subsequently received graphical representation is completed based in part upon

the visual display provided by the first graphical representation such that each

graphical representation builds upon the first graphical representation to facilitate

generating the FMEA form).

Referring to claim 2, in paragraph 0048, Chandler et al. disclose that upon

completing phases of the analysis, the user can employ a task tree component to

review the phases of the analysis component (displaying a process indicator to indicate

completion of each graphical representation in the sequential order, wherein the

process indicator tracks receipt of each graphical representation for use in indicating

completion of the graphical representation).

Referring to claim 17:

a.   In paragraph 0009, Chandler et al. disclose providing a method for

facilitating Human Factors Failure Modes and Effects analysis (A computer-

implemented method to facilitate failure modes and effects analysis (FMEA) of

one or more components of a system, wherein an FMEA form is generated to

indicate the FMEA).

b.   In paragraph 0021, Chandler et al. disclose guiding the user through a

step-by-step HF PFMEA and human error risk assessment and that the tool can

be configured to provide warnings when necessary data is not available to

continue (displaying with a graphical user interface used by a computer a

sequential order of completion of steps which are to be completed by an FMEA

analyst in sequential order to facilitate generating the FMEA form).

c.   In paragraph 0025, Chandler et al. disclose that software control buttons

allow the user to move between phases of the software tool, such as by allowing

the user to move between the HF PFMEA process phases and the table and

report (FIG. 1) which are generated by the process. Thus, as a user makes

changes in the process, the user can monitor effects of the changes in the

outputs of the process. Similarly, after the outputs have been generated, if the

user should need to make changes in the process, the user can easily return to

the process to effect those changes (completing the steps in sequential order).

d.   In paragraph 0049, Chandler et al. disclose that a final table and text

report are generated (and generating the FMEA form upon completion of a last

step).

Referring to claim 19:

a.   In paragraph 0009, Chandler et al. disclose providing a method for

facilitating Human Factors Failure Modes and Effects analysis (A computer-

implemented method to facilitate failure modes and effects analysis (FMEA) of

one or more components of a system, wherein an FMEA form is generated to

indicate the FMEA).

b.   In paragraph 0021, Chandler et al. disclose guiding the user through a

step-by-step HF PFMEA and human error risk assessment and that the tool can

be configured to provide warnings when necessary data is not available to

continue (display a sequential order of completion of steps for a number of

graphical representations of component interactions which are to be completed

by an FMEA analyst and received by the graphical user interface in sequential

order to facilitate generating the FMEA form).

c.   In paragraph 0025, Chandler et al. disclose that software control buttons

allow the user to move between phases of the software tool, such as by allowing

the user to move between the HF PFMEA process phases and the table and

report (FIG. 1) which are generated by the process. Thus, as a user makes

changes in the process, the user can monitor effects of the changes in the

outputs of the process. Similarly, after the outputs have been generated, if the

user should need to make changes in the process, the user can easily return to

the process to effect those changes (and indicate whether the graphical

representations are received according to the sequential order of completion).

Claim Rejections - 35 USC § 103

8.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9.   Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Chandler et al., US 2004/0256718 A1, and further in view of <u>Advanced Failure Modes</u>

<u>and Effects Analysis of Complex Processes</u>, by Kmenta et al.

Referring to claim 3, in paragraph 0041, Chandler et al. disclose performing a

barriers and controls identification. However, Chandler et al. don't explicitly disclose

receiving a boundary diagram to pictorially diagram the component interactions of the

components comprising the system such that the boundary diagram facilitates

generating the FMEA form, wherein the boundary diagram identifies physical and non-

physical interactions between the components comprising the system. On page 4,

Kmenta et al. disclose defining a boundary to a process when building a behavior

model. It would have been obvious to one of ordinary skill at the time of the invention to

include the boundary diagram of Kmenta et al. into the system of Chandler et al. A person of ordinary skill in the art would have been motivated to make the modification because on page 8, under section 6.0 Conclusions and Future Work, Kmenta et al. disclose linking AFMEA with human error proofing, which is the object of the invention of Chandler et al.

Referring to claim 4, on page 3, in Table 2, Kmenta et al. disclose a conceptual layout design of power plant hardware including components, their names, and relationships between the components shown with lines. Further, on page 8, under section 6.0 Conclusions and Future Work, Kmenta et al. disclose that the method lends itself to automation as a product development tool (receiving textual inputs naming each one of the components comprising the system and graphically displaying the names with an interaction of the components, wherein the interaction is graphically displayed by drawing an interaction line between each component to pictorially diagram the system interactions).

Allowable Subject Matter

10.   Claims 5-15, 18, and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11.   Claim 16 is allowed.

12.   The following is a statement of reasons for the indication of allowable subject matter.

Referring to claim 5, the prior art does not teach or reasonably suggest indicating the interaction line with double arrows to indicate a physical interface and a single arrow to indicate non-physical interaction, wherein each non-physical interaction includes a textual description.

Referring to claim 6, the prior art does not teach or reasonably suggest receiving an interface matrix diagram after receiving the boundary diagram to pictorially diagram the component interactions of the components comprising the system such that the interface matrix is used in combination with the boundary diagram to facilitate generating the FMEA form.

Referring to claim 16, the prior art does not teach or reasonably suggest wherein the graphical user interface provides a number of data entry fields for an item/function textual entry, a potential failure mode textual entry, a potential effects of failure textual entry, a severity numerical entry, a classification textual entry, a potential cause of failure textual entry, a frequency of occurrence numerical entry, a current designs controls prevention textual entry, a current design controls detection textual entry, a detection numerical entry, a risk prioritization numerical entry, a recommended action textual entry, a responsibility textual entry, an actions taken textual entry, a revised severity numerical entry, a revised frequency of occurrence numerical entry, a revised detection numerical entry, and a revised risk prioritization numerical entry to be inputted with data for generating the FMEA form.

Referring to claim 18, the prior art does not teach or reasonably suggest wherein the sequential order of completion of steps comprises in order providing a boundary

diagram graphical representation, providing an interface matrix diagram graphical

representation, and providing a parameter diagram graphical representation.

Referring to claim 20, the prior art does not teach or reasonably suggest

receiving a boundary diagram, an interface matrix diagram, and an interface checklist

diagram.

Response to Arguments

13.   Applicant's arguments filed August 18, 2006 have been fully considered but they

are not persuasive. The Applicant's arguments are not persuasive because the

Applicant's declaration is improper.

Conclusion

14.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Michael C. Maskulinski whose telephone number is

(571) 272-3649. The examiner can normally be reached on Monday-Friday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Robert W. Beausoliel can be reached on (571) 272-3645. The fax phone

number for the organization where this application or proceeding is assigned is 571-

273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael C Maskulinski
Examiner
Art Unit 2113